

IV. *A Descriptive List of the Species of Popillia, in the Cabinet of the Rev. F. W. HOPE, M. A., with one Description added, from a Specimen in the British Museum.*  
By EDWARD NEWMAN.

[Read May, 1838.]

IN offering to the Entomological Society these descriptions of the species of the lamellicorn genus *Popillia*, I cannot forego the opportunity thus afforded me of bearing my testimony to the liberality with which Mr. Hope's matchless cabinet is thrown open to Entomologists. It gives me much pleasure to acknowledge, not only the great advantages I have personally received from this copious source of information, but also the prompt and uniform kindness with which my inquiries have been assisted. I consider Mr. Hope's liberality, in thus affording free access to his collections, a general advantage to science, and likely to assist materially in establishing for the Entomologists of this country a far higher reputation than they have hitherto enjoyed.

As the species of this genus appear very numerous, I have preferred confining myself, with a single exception, to those in Mr. Hope's cabinet: any attempt to monograph the genus must at present prove a failure.

With regard to specific names, I have already fully expressed my views in another place, and it is only necessary in addition to state, that I consider names, unaccompanied by descriptions, to be entirely valueless; and acting on this view of the subject, I totally disregard those published lists of words, which are designed to impose names on certain species, without the labour of describing them: so far from believing that such lists will, among men of science, impose names on the species which they are supposed to represent, I believe the greater, and by far the better portion of Entomologists, agree with myself, in considering them mere trash. Again, the practice of attempting to supersede a published and received name by an unmeaning word, of which hundreds of instances occur in two lists published respectively in London and Paris, bespeaks an egotism almost too ridiculous to excite our anger, and an ignorance of scientific usages more to be pitied than censured. It however frequently occurs, that in an extensive collection, like that of Mr. Hope, manuscript names are attached to specimens by the owner, and in describing such species, especially if they are not to be found elsewhere, it

becomes a matter of courtesy to adopt the names thus proposed, unless a suitable reason can be given for doing otherwise.

But little appears to be known of the species of *Popillia*, except as they exist in collections. There is, however, no doubt of their subsisting on living vegetables; and from the various close relations exhibited in their structure with that of the *Phyllopertha horticola*, I am inclined to believe their principal food to be the petals of flowers.

The generic name *Popillia* appears to have been proposed by Dr. Leach, but I cannot find that that learned Entomologist has ever assigned it characters. The genus has, however, been frequently described under the name, and is therefore fully established. *Trichius bipunctatus* of Fabricius, an insect not unfrequent in the neighbourhood of the Cape of Good Hope, appears to be taken as the type.

#### GENUS POPILLIA, Leach.\*

Head porrected, flat, as far as the eyes immersed in the prothorax; clypeus separated by a transverse suture; eyes distant, lateral; antennæ as long as the head, inserted in front of the eyes and beneath the clypeus, and composed of nine joints, the first elongate and somewhat club-shaped, the second very short and nearly globular, the third longer, externally somewhat incrassated; the three following are somewhat cup-shaped and much diminished in length, the remaining three are produced laterally, lamelliform, and together form an elongate clava: labrum concealed beneath the clypeus, slightly emarginate, mandibles incurved at the apex and bifid, below the apex furnished with a

\* It seems allowable to observe, that an abstract of the following pages, containing descriptions of each species, was published in the "Magazine of Natural History," for June, 1838. I am not aware that any species then characterized has since been described by any other writer; but as Entomologists have been manifesting a most wholesome and laudable spirit of activity during the four years that have elapsed since these memoranda were arranged for publication (*viz.* in the winter of 1837-8), I think it but fair to date my names from the day when they first actually appeared before the public, clothed in the dress which science prescribes. It may not be amiss also to state, that during this long interval several new species have come to my knowledge; and I have reason to believe that many others have reached this country and the continent of Europe. I shall gladly describe these at any future time, should an opportunity be kindly allowed me by their various possessors.—E. N. November 15, 1841.

membranous lobe, which is hirsute in front; below this hirsute membranous lobe is a broad flat corrugated and corneous surface presented to a similar part in the opposite mandible, these surfaces meet each other in the manner of molar teeth: the maxillæ are of equal length with the mandibles; the galea is incurved, and divided into five acute teeth; below these a small hirsute lacinia is visible; the maxipalpi are four-jointed, the second joint is rather longer than the first and third, the fourth is longer than the second, and nearly cylindrical: the labium is elongate, its lateral margins are convex in the middle, but considerably restricted both above and below the middle, the apex is slightly emarginate; near its apex, in a lateral cavity on each side, are situated the labipalpi, these are shorter and three-jointed, the joints of nearly equal length and bulk: the prothorax is very convex, nearly thrice as broad as the head, its posterior margin is flexuose; the scutellum is large and triangular; the meso-sternum is produced in a point, which extends forwards to the insertion of the fore legs: the elytra are rather wider than the prothorax, dorsally they are tolerably flat, and posteriorly they are abbreviated and truncated, leaving the terminal portion of the abdomen covered; the middle and hind tibiæ have three transverse series of acute spines on their exterior surfaces, the apical joint of all the tarsi is long, nearly equalling the other four united: the unguiculi of the fore and middle legs are of unequal size; in each pair the larger unguiculus is bifid, those of the posterior pair are nearly equal.\* The underside of the abdomen is invariably pilose, except in the first species, *P. regina*; this pilosity is often, indeed mostly, confined to the margins of the segments, and is particularly apparent along the side, giving the appearance of a row of whitish spots. I have found that these spots vary exceedingly in the same species, and are not unfrequently different on the two sides of the same individual; this circumstance has led me to believe their appearance dependent in a great measure on the recent or worn state of the specimen, more particularly as they are so situated as to be constantly exposed to friction from the meta-femora: being therefore dissatisfied with the variations of this pilosity as affording specific distinctions, I have in the following descriptions left it entirely unnoticed.

\* Plate 3, fig. 1 *a-n*, represent the generic details from *P. bipunctata*. 1 *a*, labrum; 1 *b*, mandible; 1 *c*, ditto, seen in front; 1 *d*, maxilla; 1 *e*, labium; 1 *f*, antenna; 1 *g*, front of body seen sideways; 1 *h*, fore tarsus, male; 1 *i*, ditto, female; 1 *k*, middle tarsus, male; 1 *l*, ditto, female; 1 *m*, hind tarsus, male; 1 *n*, ditto, female.

The normal form of *Popillia*, as exhibited in *P. bipunctatus*, the *Trichius bipunctatus* of Fabricius, is peculiar to the old continent, and seems to be nearly confined to the intertropical regions. The aberrant form, as exhibited in *Popillia sticticollis*, appears to be exclusively Mexican.

I have divided this genus into groups, assigning to each characters for which I claim no higher importance than that of convenience; and I wish it particularly to be understood, that I attach to these characters no value whatever, for I doubt not that I may be detected in having dismissed similar ones as of too little weight, even for the establishment of a species. Still that they are useful, will not, I think, be disallowed, and any guide to the ready discrimination of species I have always found acceptable.

---

\* *Asiatic Group.*

Striæ of the elytra typically 13; four striæ on each side of the suture, are distinct and uninterrupted; the elytra have no dorsal excavation; terminal segment of the abdomen glabrous and immaculate; the legs are comparatively slender.

1. *POPI. REGINA.*

*Omnino lætè viridi-cænea, glabra, splendidissima; antennæ nigrae; elytra profundè striata, lateribus medio impressis; striis punctis 1°, 2°, 3°, 4°, 7°que integris, cæteris interruptis; mesosternum valdè productum, curvatum.* (Corp. long. .7 unc., lat. .4 unc.)

*Colour.*—This brilliant insect is entirely of a resplendent green colour, with black antennæ.

*Sculpture.*—Head thickly punctured anteriorly; the prothorax has some very minute scattered punctures on its disk, and others deeper and more conspicuous near its margin: each elytron has thirteen striæ, of these the four nearest to the suture are uninterrupted; the fifth is imperfect and interrupted, it occupies the summit of a raised space between the fourth and sixth, which last is imperfect towards the apex of the elytron; the seventh is nearly entire; the remainder are variously interrupted.

Received from the Nilghery Mountains, in the East Indies.

\*\* *African Group.*

Striæ of the elytra typically eleven; one stria on each side of the suture distinct; the elytra have no excavation dorsally; the terminal segment of the abdomen has constantly two conspicuous spots, composed of white hairs; the legs in this group are very robust.

2. *POPI. DORSIGERA.*

*Nigro-ænea, elytrorum fasciâ medianâ transversâ communi fulvâ; podex brunneus, pilis albis bisignatus; elytra striata, striis punctis, et, 1° excepto, abbreviatis.* (Corp. long. .75, lat. .4 unc.)

*Colour.*—Head and prothorax deep metallic green, approaching to black; elytra nearly black, and having a transverse fulvous fascia common to both, and nearly equidistant from their base and apex; the terminal segment of the abdomen is brown, with two conspicuous white spots; the legs are brown, with a metallic tint.

*Sculpture.*—Head thickly punctured; prothorax thickly punctured anteriorly and laterally, but somewhat more sparingly towards the posterior margin; scutellum punctured thickly at the base, more sparingly towards the apex; the elytra are striated, but the first or sutural stria is the only one which reaches the apex of the elytron; the others cease at about two-thirds of their length; the second is composed of scattered punctures.

Inhabits Africa, whence it was brought to England by Captain Tuckey. I believe this insect to be unique in the cabinet of the British Museum.

3. *POPI. BRUNNEA.*

*Nigra; clypeo, antennis, elytris pedibusque castaneis, metatarsis piccis; podex pilis albis bisignatus; elytra striata, striis 1°, 2°, 4°que subintegrâ.* (Corp. long. .65, lat. .4 unc.)

*Colour.*—Black, with the clypeus brown, and the antennæ testaceous; the elytra are brown, with the suture and margins nearly black; the legs are brown, but of a lighter shade than the elytra; the terminal segment of the abdomen is brown, with two conspicuous white spots.

*Sculpture.*—Head thickly punctured; prothorax thickly punctured anteriorly and laterally, but perfectly glabrous posteriorly; scutellum sparingly punctured; elytra with five tolerably per-

fect punctate striæ on each, viz. first, third, fourth, fifth and sixth; the site of the second stria is occupied by an irregular series of scattered punctures.

Inhabits Africa. From the cabinet of the late Mr. Haworth.

#### 4. *POPI. ÆNEAS*.

*Olivacco-viridis* *antennis pedibusque brunneis, metatarsis piceis; podex pilis albis bisignatus; elytra striata, striis P. brunneæ.* (Corp. long. .65 unc., lat. .375 unc.)

*Colour*.—Olive green, with the antennæ and legs of a clear brown, approaching testaceous; the hind tarsi piceous; the terminal segment of the abdomen above is deep olive green, with two conspicuous white spots; its extreme point is testaceous.

*Sculpture*.—Head, prothorax and elytra are punctured as in *P. brunnea*, but the striæ are somewhat deeper and more distinct.

Inhabits Africa. From the cabinet of the late Mr. Haworth.

#### 5. *POPI. RUFIPES*.

*Nigra; clypeo sordidè, antennis pedibusque lætè castaneis, metatarsis piceis; podex pilis albis bisignatus; elytra striata, striis fere P. brunneæ.* (Corp. long. .55 unc., lat. .35 unc.)

*Cetonia rufipes.* Fabricius, Syst. Eleu. ii. 139.

*Cetonia 4-punctata.* Olivier, Vol. i. No. 6, p. 80 and p. 101; *Cetonia*, Tab. X. Fig. 93.

*Colour*.—Black, with the clypeus piceous, the antennæ and legs brown, the hind tarsi piceous; the terminal segment of the abdomen above has two conspicuous white spots.

*Sculpture*.—The head, prothorax, scutellum, and elytra, are punctured as in *P. Æneas*, the same distinctions in the striæ of the elytra being observable.

I have no doubt that this is the *Cetonia rufipes* of Fabricius, and the *Cetonia 4-punctata* of Olivier. The description of both authors agree in every particular with the specimen before me, but Olivier's figure is very bad. Should it turn out that I am mistaken in this, the name will still stand, as there is no other insect described under the name of *Popillia rufipes*.

Inhabits Africa. From the cabinet of the late Mr. Haworth.

The close resemblance between the three insects above described leads me to fear that they may be varieties of a single species; but in the total absence of any evidence on this subject, and also of all accurate or precise knowledge of their habitat and

geographical range, it would be presuming too far to describe them as such, particularly as their facies is so entirely different. A difficulty of this kind must always occur in instances like the present, in which single individuals only are accessible to the describer.

6. *POPI. BIPUNCTATA*.—Plate 3, fig. 1, and details.

*Nigra, nitida, elytris testaceis, pedibus nigris; podex pilis albis bisignatus; elytra striata, striis fere P. brunneæ.* (Corp. long. .55 unc., lat. .325 unc.)

*Trichius bipunctatus.* Fabricius, Syst. Eleu. ii. 132.

*Melolontha bipunctata.* Olivier, i. 5. Tab. VI. Icon. 69.

*Colour*.—Head, prothorax, scutellum, legs and abdomen black, with an obscure metallic tint; elytra testaceous; terminal segment of the abdomen above with two conspicuous white spots.

*Sculpture*.—Head thickly punctured; prothorax thickly punctured anteriorly and laterally; elytra with ten striæ; the first stria is entire; the second is very obscure, being nothing more than an irregular series of punctures; the third to the sixth are tolerably regular; after that all are more or less interrupted towards the base.

Inhabits the Cape of Good Hope, and appears not to be uncommon.

7. *POPI. OLEA*.

*Olivaria, luce varians; antennis elytrisque testaceis, fulgore metallico nitidis; pedes testacei fulgore cupreo nitidi; podex pilis albis bisignatus; elytra 11-striata, striis punctis et (2<sup>o</sup> interrupto 10<sup>o</sup>que abbreviato exceptis) integris.* (Corp. long. .5 unc., lat. .3 unc.)

*Colour*.—Olive green, varying in tint with a varied position of light; the antennæ and elytra are testaceous, but have a refulgent metallic greenish gloss; the legs are testaceous, with a coppery gloss; the terminal segment of the abdomen above is coppery green, with two conspicuous white spots.

*Sculpture*.—The head and prothorax are thickly punctured, the scutellum sparingly so; the elytra have eleven punctate striæ, of which the second from the suture is composed of scattered punctures, the tenth is abbreviated, the remainder are nearly entire.

Inhabits Africa.

## \*\*\* Asiatic Group.

The striæ typically ten; the second stria from the suture differs but little from the rest; each elytron has a deep excavation dorsally; the two spots on the terminal segment of the abdomen are occasionally, not constantly present.

## 8. POPI. MUTANS.

*Castanea, fulgore metallico mutanti nitida; antennis pedibusque concoloribus; podex haud signatus; elytra striata, utrinque prope suturam profundè foveata.* (Corp. long. .45 unc., lat. .375 unc.)

*Colour.*—Brown, but completely covered with a varying bronzy lustre; the antennæ and legs are concolorous with the other parts.

*Sculpture.*—The head is thickly punctured; the prothorax is punctured anteriorly and laterally; the scutellum is punctured sparingly and variously in different specimens; the elytra are nearly flat; the striæ are punctate, the second stria is situated very near the first, but is scarcely less entire; on each side of the suture, just below the scutellum, is a deep and conspicuous fovea.

Inhabits the East Indies.

## 9. POPI. CHLORION.

*Obscurè viridis, nitida; antennæ piceæ; pedes chalybeo-nigri; podex pilis albis bisignatus; elytra striata, utrinque prope suturam profundè foveata; striis haud punctis.* (Corp. long. .4 unc., lat. .25 unc.)

*Colour.*—Dark bottle green, shining; antennæ and legs black, with a steely blue reflection; the terminal segment of the abdomen above has two white spots.

*Sculpture.*—The head is thickly punctured; the prothorax is punctured anteriorly and laterally; the elytra are striated, but the striæ are not punctured; on each side of the suture is a deep transverse fovea, just below the scutellum.

Inhabits the East Indies. Received from Madras.

## 10. POPI. CYANEA.

*Lætè chalybeo-cyanea, pedibus concoloribus; antennæ nigræ; podex nullo modo signatus; elytra striata, prope suturam utrinque pro-*



*fundè foveata, striis punctis.* (Corp. long. .4 unc., lat. .25 unc.)

$\alpha$  *Popi. cyanea.* Hope, Zoological Miscellany, p. 23.

$\beta$  *Popi. beryllina.* Hope, Præcedenti affinis; supra tota viridicyanea. Sine dubio eadem species.

$\gamma$  *Popi. somnulosa.* Obscurior, latior; *elytrorum foveæ minores at profundiores cætera P. cyanæ a.*

Received from the Himalaya Mountains in Thibet by Mr. Spencer, and presented to me by that gentleman.

*Colour.*—Uniform beautiful dark blue, the legs being of the same colour, and the antennæ black; the terminal segment of the abdomen is without spots.

*Sculpture.*—The head and prothorax are punctured, but on the latter the punctures are very sparingly scattered posteriorly; the scutellum is sparingly punctured; the elytra are striated, and the striæ deeply punctured; on each side of the suture is a deep transverse fovea, just below the scutellum.

Inhabits the East Indies. Communicated by the late General Hardwick.

#### 11. POPI. ADAMAS.

*Nigro-cyanea, nitida, pedibus concoloribus; antennæ nigræ; podex pilis niveis bisignatus; clytra striata, utrinque prope suturam fundè foveata, striis punctis.* (Corp. long. .45 unc., lat. .25 unc.)

*Colour.*—Dark shining indigo colour, with black antennæ and legs, the latter exhibiting blue reflections; the prothorax has a margin of white hairs, and the terminal segment of the abdomen has two conspicuous white spots.

*Sculpture.*—The anterior part of the head is thickly punctured; the prothorax is very sparingly punctured, particularly near the centre and posterior margin; the scutellum has about thirty punctures; the elytra are striated, and the striæ are punctured, but not very deeply; on each side of the suture is a deep fovea, just below the scutellum.

Inhabits the East Indies.

#### 12. POPI. COMPLANATA.

*Caput, prothorax et scutellum viridi-ænea; elypeus castaneus, antennæ castaneæ, capitulo nigro; clytra testacea, complanata, puncto-striata, utrinque prope suturam vagè foveata; pedes castanei,*

*fulgore metallico nitidi*; *podex nigro-æneus*, *pilis albis bisignatus*. (Corp. long. .45 unc., lat. .275 unc.)

*Colour*.—Head metallic green, with the clypeus brown; prothorax and scutellum metallic green, the lateral margins of the former clothed with grey hairs; elytra testaceous; the terminal segment of the abdomen is black, with a cupreous metallic tint, and has two white spots; the legs are brown, with metallic tints; the tarsi piceous.

*Sculpture*.—Head thickly punctured, especially between the eyes; the disk of the prothorax sparingly and slightly punctured, the lateral margins punctured more coarsely; the elytra are very flat, they have punctured striæ, between the first and second is a series of punctures extending from the base nearly half the length of the elytra, on each side of the suture is a very evident but not deep fovea, just below the scutellum.

Inhabits the East Indies.

### 13. *POPI. LUCIDA.*

*Chalybeo-ænea*; *antennæ piceæ*; *elytra testacea*; *pedes castanei*, *fulgore metallico nitidi*; *podex pilis nigris bisignatus*; *elytra striata*, *utrinque prope suturam profundè foveata*, *striis punctis*. (Corp. long. .3 unc., lat. .2 unc.)

*Colour*.—Dark chalybeous blue, or metallic green, with piceous antennæ; the prothorax has a margin of white hairs, and the terminal segment of the abdomen has two white spots.

*Sculpture*.—The head is thickly punctured, especially between the eyes; the prothorax is deeply punctured, with the exception of its posterior margin, and the punctures are more profound than in the preceding species; the scutellum is very shining, and sparingly punctured; the elytra are striated, and the striæ punctured; between the first and the second striæ are a few scattered punctures near the scutellum.

Inhabits the East Indies.

### 14. *POPI. MINUTA.*

*Sordidè ænea*; *antennæ nigræ*; *pedes nigro-ænei*; *elytra testacea*, *marginibus suturaque nigro-æneis*; *podex pilis albidis bisignatus*; *elytra striata*, *prope suturam utrinque profundè foveata*; *striis punctis*. (Long. corp. .3 unc., lat. .2 unc.)

*Popi. minuta*. Hope, Zoological Miscellany, p. 23.

*Colour*.—Head, prothorax and scutellum metallic green, with a

coppery or rosy tinge; antennæ and legs nearly black, with a varying metallic lustre; elytra testaceous, with the suture and margins nearly black, but tinged with a metallic lustre; the terminal segment of the abdomen above has two whitish spots.

*Sculpture*.—The head and prothorax are deeply and coarsely punctured, much more so than in any previously described species of this group; the elytra are striated, the striæ regularly punctured; between the first and second striæ, near the base, are twelve or fourteen scattered punctures; on each elytron near the suture is a deep transverse fovea, just below the scutellum.

Inhabits the East Indies.

---

\*\*\*\* *Asiatic Group.*

The striæ typically 10; the second stria from the suture interrupted or wanting; the elytra have no dorsal excavation; the terminal segment of the abdomen above has constantly two conspicuous spots composed of white hairs.

15. *POPI. CUPRICOLLIS.*

*Cuprico-ænea*; antennæ nigræ; pedes nigro-ænei; tarsi aterrimis; elytra testacea, fulgore metallico nitida; podex pilis albis bisignatus; elytra striata, striis punctis. (Corp. long. .425 unc., lat. .325 unc.)

α *P. cupricollis*. Hope, Zoological Miscellany, p. 23, *vide supra*.

β *P. suturata*. Elytra testacea suturâ æneâ; cætera *P. cupricollis*.

γ *P. formosa*. Hope, Zoological Miscellany, p. 23. Elytra purpurea, fulgore metallico nitida; cætera *P. cupricollis*.

δ *P. smaragdula*. Hope, Zoological Miscellany, p. 23. Elytra viridi-ænea, fulgore metallico nitida.

*Colour*.—α *P. cupricollis*, the normal appearance. Head, prothorax and scutellum golden green; antennæ black; elytra testaceous; legs bronzed; tarsi very black; the terminal segment of the abdomen above is golden green, with two conspicuous white spots.

β *P. suturata* differs only in having the region of the suture of the elytra of a bright golden green.

γ *P. formosa* differs only in having the elytra purple, with a beautiful metallic lustre.

*Sculpture*.—Head thickly punctured; prothorax punctured throughout, but the punctures smaller and more distant near the posterior margin; the prothorax moreover has in some specimens two deep discoidal foveæ; these vary in each individual, but their site is always observable; the scutellum is punctured anteriorly, but smooth posteriorly; the elytra are striated, and the striæ punctured; the first stria is very distinct, the second and third are composed of scattered punctures, and unite before reaching the apex of the elytron; the other dorsal striæ are tolerably distinct, the lateral ones are more interrupted.

Inhabits the East Indies. Communicated from Nepal, by the late General Hardwick.

In this species the impressions on the prothorax would appear to indicate a higher distinction than a mere variety; but on looking over a series of *Anisoplia*, a closely allied genus, I find in the same species individuals not only possessing prothoracic foveæ, while others are entirely without them, but some have a deep longitudinal sulcus on the prothorax, while in others not a trace of this sulcus can be found.

#### 16. *POPL. JAPONICA*.

*Cupreo-ænea*; antennæ piceæ, capitulo nigro; pedes viridi aut cupreo-ænei, tarsi nigris; elytra testacea, suturâ marginibusque nigro-æneis; pedes pilis albis bisignatus; elytra striata, striis punctis. (Corp. long. .45 unc., lat. .275 unc.)

*Colour*.—Coppery-golden green; antennæ piceous, with black lamellæ; elytra testaceous, with black suture and margin; the legs are of a dark metallic coppery or green colour, varying in tint in different positions; the tarsi are extremely black; the terminal segment of the abdomen is more elongate and pointed than in the preceding species, and is marked with two white spots.

*Sculpture*.—The head is thickly and coarsely punctured; the prothorax is coarsely punctured throughout, but rather more sparingly posteriorly; the scutellum is punctured except at the apex; the striæ of the elytra are deeply punctured; the second stria is imperfect, terminating considerably before the apex of the elytra.

Inhabits Japan.

17. *POPI. VIRESCENS.*

*Lætè ænea, nitidissima; elytra testacea, fulgore metallico nitida; antennæ testaceæ, capitulo nigro; pedes brunnei, fulgore cupreo micantes, metatarsis piceis; podex æneus, pilis albis bisignatus.* (Long. corp. .45 unc., lat. .3 unc.)

*Popi. virescens.* Hope, Zoological Miscellany, p. 23.

*Colour.*—Golden green, very brilliant; antennæ testaceous, with black lamellæ; the elytra are testaceous, with a beautiful metallic splendour; the legs are brown, with splendid metallic tints, the hind tarsi are piceous; the terminal segment of the abdomen above is golden green, with two white spots.

*Sculpture.*—The head is thickly punctured; the punctures of the prothorax are scattered and very minute; the scutellum is nearly impunctate; the striæ of the elytra are punctured, the punctures are distant and irregular.

Inhabits the East Indies. Communicated from Nepaul, by the late General Hardwick.

18. *POPI. MARGINICOLLIS.*

*Lætè ænea nitidissima; clypeo, antennis, prothoracisque marginibus testaceis; elytra testacea, suturâ æneâ; pedibus testaceis, fulgore metallico nitidis; elytra striata, striis punctis; podex æneus, pilis albis bisignatus.* (Corp. long. .45 unc., lat. .275 unc.)

*Popi. marginicollis.* Hope, Zoological Miscellany, p. 23.

*Colour.*—Bright golden green, with the clypeus, antennæ and margins of the prothorax testaceous; elytra testaceous, with a green suture; legs testaceous, with a metallic tint; the terminal segment of the abdomen above golden green, with two conspicuous white spots.

*Sculpture.*—Head thickly punctured; prothorax thickly punctured, but the punctures so minute as only to be visible under a lens of high power; scutellum with a few scattered punctures; the striæ are much more regular than in the preceding species of this group.

Inhabits the East Indies. Communicated from Nepaul, by the late General Hardwick.

19. *POPI. BIGUTTATA.*

*Lætè ænea; antennæ nigre; elytra testacea, suturâ æneâ, apice latè nigro; pedes ænei, tarsi nigri; podex æneus, pilis albis bisignatus; elytra striatu, striis punctis.* (Corp. long. .35 unc. lat. .2 unc.)

*Melolontha biguttata*. Wiedemann, in Germar's Magasin der Entomologie, tom. iv. p. 136.

*Colour*.—Bright golden green; the antennæ are black; the elytra are testaceous, with a golden green suture and a black band at the apex, which is prolonged nearly half the length of each exterior margin; the legs are golden green, and the tarsi black; the terminal segment of the abdomen is golden green, with two white spots; the legs are golden green, and the tarsi black.

*Sculpture*.—Head anteriorly thickly punctured, posteriorly nearly smooth; prothorax punctured, but the punctures are excessively minute, and only visible under a lens of high power; the scutellum has numerous large scattered punctures: the punctures of the striæ are deep and distant, the second stria terminates considerably before the apex of the wing.

Inhabits the Island of Java.

#### 20. *POPI. DIFFICILIS*.

*Lætè ænea; antennæ testaceæ, capitulo nigro; elytra testacea; pedes castanci, fulgore metallico nitidi; podex æneus, pilis albis obscure bisignatus; elytra striata, striis punctis.* (Corp. long. .325 unc., lat. .175 unc.)

*Colour*.—Bright golden green; the antennæ are testaceous, with black lamellæ; the elytra are testaceous, with a metallic splendour; the legs are brown, with a metallic splendour; the terminal segment of the abdomen is golden green, with two somewhat obscure grey spots.

*Sculpture*.—The head and prothorax are regularly and rather deeply punctured; the scutellum is very sparingly punctured; the elytra are striated, and the striæ are nearly entire and coarsely punctured.

Inhabits the East Indies.

---

#### \*\*\*\*\* *Asiatic Group*.

The striæ are typically 11; the second stria from the suture is not different from the others; the elytra have no dorsal excavation; the terminal segment of the abdomen is immaculate.

#### 21. *POPI. NITIDA*.

*Lætè ænea; antennæ, elytra, pedesque testacea, fulgore metallico*

*nitida*; *podex pilis cinereis tectus, nullo modo signatus*; *elytra striata, striis dorsalibus punctis integris*. (Corp. long. .475 unc., lat. .25 unc.)

*Popi. nitida*. Hope, *Zoological Miscellany*, p. 23.

*Colour*.—Golden green, shining, with the antennæ, elytra and legs testaceous, and tinged with a metallic splendour; the terminal segment of the abdomen is golden green, and clothed with grey hair.

*Sculpture*.—The head is thickly punctured, except posteriorly; the prothorax is thickly punctured on the sides only; the scutellum has a few minute scattered punctures; the striæ of the elytra are very regular, and deeply punctured.

Inhabits the East Indies. Communicated from Nepal, by the late General Hardwick.

## 22. *POPI. NASUTA*.

*Cuprea*; *antennæ piceæ*; *clypeus elongatus, recurvus, haud acutus*; *elytra testacea*; *pedes nigro-ænei, cupreo-varii, tarsis nigris*; *podex æneus, nullo modo signatus*; *elytra striata, striis dorsalibus punctis integris, inter 1<sup>am</sup> et 2<sup>am</sup> stria abbreviata puncta*. (Corp. long. .45 unc., lat. .275 unc.)

*Colour*.—Bright copper colour, with piceous antennæ and testaceous elytra, the latter having a fine coppery refulgence; the terminal segment of the abdomen is bright golden green, and perfectly immaculate; the legs are nearly black, with a varied coppery refulgence.

*Sculpture*.—The clypeus is prolonged, and slightly recurved, its anterior margin is much narrower than in any preceding species; together with the head, it is coarsely punctured; the prothorax is very finely punctured; the striæ of the elytra are punctured, regular, and entire; between the first and second, at the base, is an abbreviated stria, or rather an abbreviated series of scattered punctures.

Inhabits the East Indies.

## 23. *POPI. ACUTA*.

*Lætè cupreo-ænea*; *antennæ castaneæ*; *clypeus elongatus, recurvus, acutus*; *elytra pedesque testacea, fulgore metallico nitida*; *podex æneus, nullo modo signatus*; *elytra striata, striis dorsalibus punctis integris*. (Corp. long. .45 unc., lat. .275 unc.)

*Colour*.—Bright coppery green, with brown antennæ and testaceous elytra and legs, both of which have a brilliant metallic

splendour; the terminal segment of the abdomen is golden green, and immaculate.

*Sculpture*.—The clypeus is elongated, slightly recurved, and very acute, and, together with the head, is thickly and uniformly punctured; the punctures of the prothorax are very minute; those of the scutellum larger, but very few in number; the elytra are precisely as in *P. nasuta*, to which species it very closely approaches.

Inhabits the East Indies.

#### 24. *POPI. RUGICOLLIS*.

*Caput viride, clypeo antennisque testaceis; prothorax rugosus viridis, marginibus testaceis; pedes testacci; elytra testacea sulcata, sulcis punctis; podex nigro-cæneus, pilosus, nullo modo signatus.* (Corp. long. .375 unc., lat. .2 unc.)

*Colour*.—Head green, with testaceous clypeus and antennæ; prothorax green, with the lateral and posterior margins testaceous; scutellum green; elytra and legs pale brown; abdomen nearly black, the terminal segment above is clothed with grey hairs, and is perfectly immaculate.

*Sculpture*.—Head coarsely punctured; prothorax very rugose; scutellum irregularly but deeply punctured; elytra sulcated, sulci 11, punctured.

Inhabits the East Indies.

#### 25. *POPI. FIMBRIATA*.

*Nigra; antennæ testacæ, capitulo nigro; caput et prothorax obscure virescentia; elytra chalybea, vagè puncto-striata; podex pilis albis transversè manifestè 1-lincatus.* (Corp. long. .3 unc., lat. .175 unc.)

*Colour*.—Nearly black; antennæ testaceous, with the lamellæ black; head and prothorax dark green; elytra dark indigo blue; legs nearly black, with green and blue shades; the terminal segment of the abdomen has a distinct linear fringe of white hair on its upper margin at its junction with the apex of the elytra.

*Sculpture*.—Head thickly punctured, prothorax punctured not so thickly as the head, but more deeply, and very regularly; elytra with eleven interrupted series of punctures.

Inhabits the East Indies.



\*\*\*\*\* *Mexican Group.*

The elytra are without either impressed striae, or dorsal excavations, but have series of punctures generally arranged in lines; the terminal segment of the abdomen is immaculate.

26. *POPI. STICTICOLLIS.*

*Testacea; capitis maculae duae posticae, prothoracis maculae discoidales 2, marginesque anticus et posticus, scutelli margo, elytrorum sutura margoque lateralis versus apicem nigra.* (Corp. long. .45 unc., lat. .25 unc.)

*Colour.*—Testaceous, with the posterior part of the head where received into the prothorax black. This colour extends forwards near each eye, beyond the anterior margin of the prothorax, thus looking like two detached spots. On the prothorax are two detached spots, elongate longitudinally; the anterior and posterior margins are also black: the scutellum has a black margin; the suture of the elytra, and the posterior half of the external margin uniting with the suture, are also black; the entire sternum is black, the femora piceous and the tarsi black. The terminal segment of the abdomen above is perfectly immaculate.

*Sculpture.*—The head is punctured with tolerable regularity; the punctures are large, but not deep; the prothorax is punctured rather more sparingly than the head; the elytra have no impressed striae, but have twelve series of punctures, at nearly regular intervals; of these, the second is very diffuse and ill-defined, and seems to be composed of two series of punctures intermixed.

Inhabits Mexico.

27. *POPI. VIDUA.*

*Nigra, glabra; antennae testaceae, capitulo nigro.* (Corp. long. .425 unc., lat. .25 unc.)

*Colour.*—Black and shining; the antennae are testaceous, with the lamellae black; the terminal segment of the abdomen above is perfectly immaculate.

*Sculpture.*—As in the last.

Inhabits Mexico.

## 28. POPI. SEMIRUFA.

*Ferruginea*; *antennarum capitulus, capitis vertex, prothoracis discus, elytra tota, protibiæ omnino, metatibiarum apices, tarsique undique omnes nigra.* (Corp. long. .425 unc., lat. .25 unc.)

*Colour*.—Clypeus ferruginous, crown of the head black; antennæ ferruginous, with the lamellæ black; prothorax black in the centre; the lateral margins broadly ferruginous; elytra entirely black; the under side is entirely ferruginous; the legs also are ferruginous; the fore tibiæ, the apex of the hind tibiæ, and all the tarsi, being black. The terminal segment of the abdomen above is perfectly immaculate.

*Sculpture*.—As in *P. sticticollis*, and *P. vidua*.

Inhabits Mexico.

The extreme similarity in the sculpture of these three species leads me to suspect the invalidity of the distinctions, which I have derived from colour only.

\*\*\*\*\* *Mexican Group.*

Striæ of the elytra 9, very deep, sulciform, the two nearest the external margin sesquialterous; the terminal segment of the abdomen above is pilose, but perfectly immaculate.

## 29. POPI. CASTOR.

*Castanea*; *prothoracis discus rugosus, margins ochracei; clytra sulcata, sulci profundè puncti, clytrorum humeri nigri.* (Corp. long. .28 unc., lat. .175 unc.)

*Colour*.—Head and antennæ brown; the prothorax brown, with a slender margin of pale yellow completely surrounding it; the scutellum is brown, with a green margin; elytra pale ochraceous, with the shoulders black; at the suture, and also towards the apex of each, is a darker shade; the under side is piceous, and very hairy; the legs are brown, with piceous tarsi.

*Sculpture*.—Head thickly and regularly punctured; prothorax completely rugose, with large, deep and confluent punctures; scutellum with deep, but not crowded punctures; elytra with nine deep punctured sulci, the two on each side nearest the margin being sesquialterous.

Inhabits Mexico.

## 30. POPI. POLLUX.

*Nigro-cænea*; *prothoracis marginibus elytrisque totis testaceis*; *pedes brunnei, tarsi piccis*; *elytra sulcata, sulcis profundè punctatis*. (Corp. long. .27 unc., lat. .16 unc.)

*Colour*.—Head nearly black, with a metallic tinge; prothorax golden green, with a slender margin of pale yellow completely surrounding it; scutellum golden green; elytra pale testaceous, with the shoulders concolorous, and the suture brown: the legs are brown, and somewhat metallic; the tarsi dark.

*Sculpture*.—Head thickly punctured; prothorax deeply and regularly, but not very thickly punctured; scutellum with deep but not crowded punctures; elytra with nine deep punctured sulci, the three on each side nearest the margin being sesquialterous.

Inhabits Mexico.

[Descriptions of two additional Assamese species have been published by Mr. Newman in the Magazine of Natural History for July, 1839, under the names of *P. varia* and *P. gemma*. A figure of the latter species has since been published in the Linnæan Transactions, vol. 18, pl. 40, fig. 4. Three other species, from the Philippine islands, have also been described by Mr. Newman in the "Entomologist" for December, 1841; and another, from the Nielgherries, by M. Guérin Méneville, in the Revue Zoologique for February, 1840.—SEC. E. S.]

---